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DATE MAILED: 08/07/2009

NOTICE OF ALLOWANCE AND FEE(S) DUE

2101 7590 08/07/2009 Sunstein Kann Murphy & Timbers LLP 125 SUMMER STREET

BOSTON: MA 02110-1618

EXAMINER

LAMPRECHT, JOEL

ART UNIT PAPER NUMBER

3737

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. | | | |
|---|-------------|----------------------|---------------------|------------------|--|--|--|
| 10/717,437 | 11/19/2003 | Stephen A. Boppart | 2895/136 | 6997 | | | |
| TITLE OF INVENTION: NONLINEAR INTERFEROMETRIC VIBRATIONAL IMAGING | | | | | | | |

| APPLN. TYPE | SMALL ENTITY | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE FEE | TOTAL FEE(S) DUE | DATE DUE |
|----------------|--------------|---------------|---------------------|----------------------|------------------|------------|
| nonprovisional | YES | \$755 | \$300 | \$0 | \$1055 | 11/09/2009 |

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT, PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 1SI. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FIEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

| appropriate. All further indicated unless corrects maintenance fee notifica | correspondence includir ed below or directed oth | or transmitting the 188 ng the Patent, advance nerwise in Block 1, by | orders and notification of r (a) specifying a new corres | naintenance fees wi pondence address; | II be and/or | mailed to the current (b) indicating a sepa | correspondence address as trate "FEE ADDRESS" for |
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| CURRENT CORRESPOND | ENCE ADDRESS (Note: Use Bi | ock 1 for any change of address | Note Feet pape have | e: A certificate of n (s) Transmittal, This ers, Each additional e its own certificate | nailing certif paper of mai | can only be used for icate cannot be used for such as an assignme ling or transmission. | r domestic mailings of the or any other accompanying nt or formal drawing, must |
| Sunstein Kann 125 SUMMER S BOSTON, MA | | | | Conti | Gente | of Mailing or Trans | |
| | | | | | | | (Depositor's name) |
| | | | | | | | (Signature) |
| | | | | | | | (Date) |
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| EXAM | IINER | ART UNIT | CLASS-SUBCLASS |] | | | |
| LAMPREC | CHT, JOEL | 3737 | 600-437000 | • | | | |
| CFR 1.363). Change of corresp Address form PTO/S1 Fee Address" ind PTO/SB/47; Rev 03-C Number is required. ASSIGNEE NAME A | ND RESIDENCE DATA less an assignee is ident h in 37 CFR 3.11. Comp | nge of Correspondence "Indication form ed. Use of a Customer A TO BE PRINTED ON | 2. For printing on the p (1) the names of up to or agents OR, alternati (2) the name of a singl registered attorney or a 2 registered appeart atto listed, no name will be THE PATENT (print or typ e data will appear on the p OI a substitute for filing an (B) RESIDENCE: (CTTY | 3 registered patent vely, e firm (having as a agent) and the name rneys or agents. If n printed. | memb s of up o nam | er a 2 | ocument has been filed for |
| Please check the appropr | iate assignee category or | categories (will not be | printed on the patent): | Individual 🚨 Cor | porati | on or other private gro | oup entity 🚨 Government |
| 4a. The following fee(s) Issue Fee Publication Fee (N | vo small entity discount p | | 4b. Payment of Fee(s): (Plea A check is enclosed. Payment by credit car The Director is hereby overpayment, to Depo | d. Form PTO-2038 | is atta | ched. | shown above) ficiency, or credit any n extra copy of this form). |
| - 11 | s SMALL ENTITY state | is. See 37 CFR 1.27. | b. Applicant is no lon | | | | |
| NOTE: The Issue Fee an interest as shown by the | d Publication Fee (if req records of the United Sta | uired) will not be accept tes Patent and Tradema | ted from anyone other than t rk Office. | he applicant; a regis | tered a | ttorney or agent; or th | e assignee or other party in |
| Authorized Signature | | | | Date | | | |
| Typed or printed nam | | | Registration No | | | | |
| This collection of inform an application. Confiden submitting the complete this form and/or suggesti Box 1450, Alexandria, V Alexandria, Virginia 223 | nation is required by 37 C tiality is governed by 35 d application form to the ions for reducing this but 'irginia 22313-1450. DC k13-1450. | FR 1.311. The informat U.S.C. 122 and 37 CFI USPTO. Time will var den, should be sent to t O NOT SEND FEES OR | tion is required to obtain or r R 1.14. This collection is est ry depending upon the indiv the Chief Information Office R COMPLETED FORMS TO | etain a benefit by th imated to take 12 m idual case. Any con er, U.S. Patent and T D THIS ADDRESS. | e publ inutes nment Traden SENI | ic which is to file (and to complete, includin s on the amount of tir ark Office, U.S. Dep D TO: Commissioner | by the USPTO to process) g gathering, preparing, and me you require to complete artment of Commerce, P.O. for Patents, P.O. Box 1450, |

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| BOSTON, MA 02110-1618 | | | 3737 | | | | |
| | | | | DATE MAILED: 08/07/2009 | | | |

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 817 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 817 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Application No. Applicant(s) 10/717,437 BOPPART ET AL. Notice of Allowability Examiner Art Unit JOEL M. LAMPRECHT 3737 -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308. This communication is responsive to Response of 5/1/09. The allowed claim(s) is/are 1,3-5,7-36 and 40. 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) \square All b) ☐ Some* c) ☐ None of the: 1. T Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)). * Certified copies not received: _____. Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient. CORRECTED DRAWINGS (as "replacement sheets") must be submitted. (a) Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached 1) hereto or 2) to Paper No./Mail Date (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d). 6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL. Attachment(s) 1. | Notice of References Cited (PTO-892) 5. Notice of Informal Patent Application 2. Notice of Draftperson's Patent Drawing Review (PTO-948) Interview Summary (PTO-413), Paper No./Mail Date Information Disclosure Statements (PTO/SB/08). 7. Examiner's Amendment/Comment Paper No./Mail Date 4. T Examiner's Comment Regarding Requirement for Deposit 8. X Examiner's Statement of Reasons for Allowance of Biological Material 9. ☐ Other .

Application/Control Number: 10/717,437

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DETAILED ACTION

Allowable Subject Matter

Claims 1, 3-5, 7-36, and 40 are allowed.

REASONS FOR ALLOWANCE

The following is an examiner's statement of reasons for allowance: The closest prior art does not disclose the exposure of a non-linear reference medium in an interferometric system to create either an anti-Stokes or Stokes photon at some shifted frequency as well as the interfering of a set of radiation scattered from a sample via the frequency shifted scattered radiation from the reference arm. The closest prior art does not disclose such a non-linear reference medium optically coupled to an oscillator for a system which is capable of interfering radiation to create images.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOEL M. LAMPRECHT whose telephone number is (571)272-3250. The examiner can normally be reached on 8:30-5:00 Monday - Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian L. Casler can be reached on (571) 272-4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/BRIAN CASLER/ Supervisory Patent Examiner, Art Unit 3737

JML